

(1) **Pre-order.** The pre-order standard measures the incumbent LEC's timeliness in responding to a query for pre-ordering information. The incumbent LEC shall measure the timeliness in responding to queries for the following pre-ordering information: 1) Due Date Reservation; 2) Feature Function Availability; 3) Facility Availability; 4) Street Address Validation; 5) Service Availability Information; 6) Appointment Scheduling; 7) Customer Service Records; and 8) Telephone Number Assignments.

(i) **Default performance intervals.** If an incumbent LEC does not have historical data relative to the above measurement category, it shall provide such performance intervals at the following default levels. For items 1-7 above, the incumbent LEC shall provide responses to any query within 2 seconds or less and within 5 seconds or less 100% of the time. The response time of 2 and 5 seconds shall be measured from the time the query is launched until the data is received by the requesting entity. For requests of 30 telephone number assignments or less the incumbent LEC shall provide such telephone numbers within 2 seconds or less 98% of the time and within 5 seconds or less 100% of the time. For requests of 30 telephone number assignments or more the incumbent LEC shall provide such telephone numbers within 2 hours 100% of the time.

(ii) **Measurement formulas.** The following formulas shall be used by the incumbent LECs and requesting carriers to determine the incumbent LEC's compliance with the incumbent LEC's own performance intervals for pre-ordering and/or compliance with the default performance intervals set forth above.

$$\left[ \frac{\text{Number of Responses Received on Time}}{\text{Total Number of Queries Sent}} \right] \times 100$$

Mean Cycle Time

(2) **Ordering and provisioning.** The ordering and provisioning standard is made up of the following four sub-categories: 1) Orders completed within specified intervals;\* 2) Order Accuracy; 3) Order Status; and 4) Number of Orders Held.

(i) **Orders completed within specified intervals.** This standard measures the incumbent LEC's ability to complete orders for installation, feature changes and service disconnects within a requested due date. The incumbent LEC shall measure the amount of time it takes to work and installation order relative to the following: 1) Unbundled Network Element Platform (at least DSO loop, local switch and all common elements); 2) Unbundled Network Element Platform channelized DS1 (DS1 loop and multiplexing); 3) Unbundled DS0 loop; 4) Unbundled DS1 loop; 5) Other Unbundled loops; 6) Unbundled Switch; 7) Dedicated Transport (DS0/DS1); 8) Dedicated transport (DS3). The incumbent LEC shall measure the

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\* Reported for the following types of service or facility: Resold POTS, Resold ISDN, Resold Centrex/Centrex-like, Resold PBX trunks, Resold Channelized T1.5 Service, Other Resold Services, UNE Platform (at least DS0 loop + local switch + transport elements), UNE Channelized DS1 (DS1 loop + multiplexing), Unbundled DS0 loop, Unbundled DS1 loop, Other Unbundled loops, Unbundled Switch, Other UNEs.



interval to complete a request for a feature change. Each Incumbent LEC shall measure the following relative to the completion of disconnection orders: 1) Resale products and/or service; 2) Unbundled Network Element switching; and 3) Unbundled Network Elements (other).

(A) **Default performance intervals.** If an incumbent LEC does not have historical data relative to the above measurement category, it shall provide such performance intervals at the following default levels. For items 1, 3,4,5 relative to installation orders, such items shall be completed within 24 hours. Items 2 and 6 shall be completed within 48 hours and items 7 and 8 shall be completed within 3 and 5 business days respectively. All feature changes shall be completed within 5 business hours and items 1-3 pertaining to the disconnection of service shall be completed within 24 hours. Unless specifically identified above, orders that require no premises visit or no physical work shall be completed within 1 day of service order receipt. Orders that require a premises visit or physical work shall be completed within 3 days of service order receipt. 99% of all orders shall be completed on the specified due date.

(B) **Measurement formulas.** The following formulas shall be used by the incumbent LEC and requesting carriers to determine the incumbent LEC's compliance with the incumbent LECs own performance intervals for ordering and provisioning relative to orders completed within specified intervals and/or compliance with the applicable state agencies or the default performance intervals set forth above.

$$\left[ \frac{\text{Number of Orders Completed on Time}}{\text{Total Number of Orders Completed}} \right] \times 100$$

Mean Completion Interval

(ii) **Order accuracy.** This standard measures the incumbent LEC's accuracy and completeness relative to the provisioning or disconnection of service. The incumbent LEC shall measure the percentage of orders that are completed without error.

(A) **Default performance intervals.** If the incumbent LEC does not have historical data relative to the above measurement category, it shall provide such performance intervals at the following default levels. The incumbent LEC shall complete no less than 99% of all orders without error.

(B) **Measurement formulas.** The following formulas shall be used by the incumbent LEC and requesting carriers to determine the incumbent LECs compliance with the incumbent LEC's own performance intervals for ordering and provisioning relative to the accuracy of orders and/or compliance with the default performance intervals set forth above.

$$\left[ \frac{\text{Number of Orders Completed without Error}}{\text{Total Number of Orders Sent}} \right] \times 100$$



(iii) **Order status.** This standard measures the incumbent LEC's response time. Each incumbent LEC shall measure their response time relative to Firm Order Confirmations (C-FOCs and D-FOCs\*). Jeopardies/revised due date, Rejects, and Order Completions.

(A) **Default performance intervals.** If the incumbent LEC does not have historical data relative to the above measurement category, it shall provide such performance intervals at the following default levels. The incumbent LEC shall provide Firm Order Confirmations and Jeopardies/revised due dates within 4 hours or less 100% of the time. The incumbent LEC shall provide a response to rejects within 15 seconds or less 97% of the time and responses to order completions shall be provide within 30 minutes or less 97% of the time. The order status interval shall be measured from the time the order is sent to the incumbent LEC until a status is received.

(B) **Measurement formulas.** The following formulas shall be used by the incumbent LECs and requesting carriers to determine the incumbent LEC's compliance with the incumbent LEC own performanceintervals for ordering and provisioning relative to the accuracy of orders and/or compliance with the default performance intervals set forth above.

$$\left[ \frac{\text{Number of C-FOCs Returned in } \leq 4 \text{ Hours}}{(\text{Total Number of Orders Sent} - \text{Syntax Rejects Returned})} \right] \times 100$$

Mean Time to Return FOC

$$\left[ \frac{\text{Number of D-FOCs Returned in } \leq 4 \text{ Hours}}{(\text{Total Number of Orders} - \text{Rejects Returned})} \right] \times 100$$

Mean Time to Return D-FOCS

$$\left[ \frac{\text{Number of Syntax Rejects Returned in } \leq 15 \text{ Seconds}}{(\text{Total Number of Syntax Rejects Returned})} \right] \times 100$$

Mean Time to Return Rejects

$$\left[ \frac{\text{Jeopardies Returned Within 70\% of Allotted Order Time}}{\text{Total Number Jeopardies Returned}} \right]$$

$$\left[ \frac{(\text{Number of Completions in } \leq 30 \text{ Minutes})}{(\text{Total Number Completed Orders})} \right] \times 100$$

Mean Time to Return Completion

Jeopardies = Total C-FOCS - Total Rejects



(iv) **Number of held orders.** This standard measures the percentage and number of orders held in a given period. The incumbent LEC shall report two distinct measurements relative to the number of orders held. First, the incumbent LEC shall report the number of orders held between 15 and 89 days. Second, the incumbent LEC shall report the number of orders held for 90 days or longer.

(A) **Default performance intervals.** If the incumbent LEC does not have historical data relative to the above measurement category, it shall provide such performance intervals at the following default levels. The number of orders held by the incumbent LEC that fall between 15 and 89 days shall not be more than 0.1% of total orders. The incumbent LEC shall not hold any order for a period of 90 days or more.

(B) **Measurement formulas.** The following formulas shall be used by the incumbent LEC and requesting carriers to determine the incumbent LEC's compliance with the incumbent LEC's own performance intervals for ordering and provisioning relative to the number of held orders and/or compliance with the default performance intervals set forth above.

$$\left[ \frac{(\text{Number of Orders Held for } \geq \text{"x" Days})}{(\text{Total Number of Orders Sent to Incumbent LEC in Past x Days})} \right] \times 100$$

Mean time of orders held prior to completion

(3) **Maintenance and repair.** The maintenance and repair category is made up of four sub-categories: 1) Time to Restore\*; 2) Repeat Troubles\*; 3) Troubles Per 100 Lines\*; and 4) Estimated Time to Restore\*.\*

(i) **Time to restore.** This measures the percentage of services and products restored by the incumbent LEC within 24 hours or less. The incumbent LEC shall measure:

1) The number of "Out of Services" that require no dispatch; 2) All other troubles requiring dispatch.

(A) **Default performance intervals.** If the incumbent LEC does not have historical data relative to the above measurement category, it shall provide such performance intervals at the following default levels. The incumbent LEC shall restore 85% or more of all out of services that require no dispatch within 2 hours, 95% or more within 3 hours and 99% or more within 4 hours. The incumbent LEC shall restore 95% or more of all other troubles within 24 hours, 90% or more within 4 hours, 95% or more within 8 hours and 99% or more within 16 hours.

(B) **Measurement formulas.** The following formulas shall be used by the incumbent LEC and requesting carriers to determine the incumbent LEC's compliance with the incumbent LEC's own performance intervals for maintenance/ repair relative to Time to Restore and/or compliance with the default performance intervals set forth above.

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\*Ibid.



$$\left[ \frac{\text{(Number of Troubles Restored Within "x" hours)}}{\text{Total Number Troubles}} \right] \times 100$$

*where "x" = 2, 3, 4, 8, 16, or 24 "running clock" hours*

$$\left[ \frac{\text{Total Number of Trouble Minutes}}{\text{Total Number of Trouble Reports}} \right]$$

(ii) **Repeat troubles.** This standard measures the frequency of recurring customer trouble on the same line, circuit or service. The incumbent LEC shall measure the percentage of customer troubles recurring within 30 days of initial problem reported.

(A) **Default performance intervals.** If the incumbent LEC does not have historical data relative to the above measurement category, it shall provide such performance intervals at the following default levels. The incumbent LEC shall have 1% or less of troubles recur within 30 days of the initial reported problem.

(B) **Measurement formulas.** The following formulas shall be used by the incumbent LEC and requesting carriers to determine the incumbent LEC's compliance with the incumbent LEC's own performance intervals for maintenance/ repair relative to repeat troubles and/or compliance with the default performance intervals set forth above.

$$\left[ \frac{\text{Number of Telephone Lines Reporting } \geq 2 \text{ Troubles in the Current Report Months}}{\text{Total Number of Troubles in Current Report Months}} \right]$$

(iii) **Trouble per 100 lines.** This standard measures the frequency of troubles reported within the incumbent LEC's network. The incumbent LEC shall measure the number of troubles per 100 lines per month.

(A) **Default performance intervals.** If the incumbent LEC does not have historical data relative to the above measurement category, it shall provide such performance intervals at the following default levels. The incumbent LEC shall have 1.5 or less troubles per 100 lines per month.

(B) **Measurement formulas.** The following formulas shall be used by the incumbent LEC and requesting carriers to determine the incumbent LEC's compliance with the incumbent LEC's own performance intervals for maintenance/ repair relative to troubles per 100 lines and/or compliance with the applicable state agencies or the default performance intervals set forth above.



$$\left[ \frac{\text{Number of Initial \& Repeated Trouble Reports Per Exchange Per Month}}{\text{Total Number of Lines Per Exchange}} \right] \times 100$$

(iv) **Estimated time to restore (appointments met).** This standard measures the incumbent LEC's ability to restore services to the requesting telecommunications carrier within the time estimated for premises visits required and premises visits not required.

(A) **Default performance intervals.** If the incumbent LEC does not have historical data relative to the above measurement category, they shall provide such performance intervals at the following default levels. The incumbent LEC shall have to meet its estimated time to restore service no less than 99% of the time.

(B) **Measurement formulas.** The following formulas shall be used by the incumbent LEC and requesting carriers to determine the incumbent LEC's compliance with the incumbent LEC's own performance intervals for maintenance/repair relative to estimated time to restore and/or compliance with the default performance intervals set forth above.

$$\left[ \frac{\text{(Number of Customer Trouble Appointments Met)}}{\text{Total Number Customer Trouble Appointments}} \right] \times 100$$

(4) **General.** The general standard is made up of two sub-categories: 1) Systems Availability; and 2) Center Responsiveness.

(i) **Systems availability.** This standard measures the availability of operations support systems and associated interfaces for pre-ordering, ordering, provisioning and maintenance. The incumbent LEC shall measure the amount of unplanned downtime associated with each of these support systems and associated interfaces.

(A) **Default performance intervals.** If the incumbent LEC does not have historical data relative to the above measurement category, it shall provide such performance intervals at the following default levels. The incumbent LEC shall report the unplanned downtime per month for the following interfaces: 1) Pre-ordering inquiry interface; 2) Ordering interface; and 3) Maintenance interface. The incumbent LEC shall have 0.1% or less of unplanned downtime per month for each interface.

(B) **Measurement formulas.** The following formulas shall be used by the incumbent LEC and requesting carriers to determine the incumbent LEC's compliance with the incumbent LEC's own performance intervals for general performance standards and/or compliance with the default performance intervals set forth above.



$$\left[ \frac{\text{Number Hours Interface and/or System Not Available as Scheduled}}{\text{Total Number Hours Scheduled Availability}} \right] \times 100$$

Mean Number of Hours Available

(ii) **Center responsiveness.** This standard measures the time for the incumbent LEC representative to answer business office calls in provisioning and trouble report centers. Each incumbent LEC shall measure the percentage of calls answered with 20 seconds or less and the number of calls answered within 30 seconds.

(A) **Default performance intervals.** If the incumbent LEC does not have historical data relative to the above measurement category, it shall provide such performance intervals at the following default levels. Incumbent LECs shall answer 95% or more of all calls within 20 seconds. Incumbent LECs shall answer 100% of all calls within 30 seconds.

(B) **Measurement formulas.** The following formulas shall be used by the incumbent LEC and requesting carriers to determine the incumbent LEC's compliance with the incumbent LEC's own performance intervals for general performance standards and/or compliance with the default performance intervals set forth above.

$$\left[ \frac{\text{Number of Calls Answered Within Specific Time Frame}}{\text{Total Number of Calls from Requesting Carrier to Center}} \right] \times 100$$

Mean Time to Answer Calls without IVR

If IVR is used - Mean Time to Answer Calls after the end of IVR

(5) **Billing.** The billing standard is made up of two sub-categories: 1) Timeliness of Billing Records Delivered; and 2) Accuracy.

(i) **Timeliness of billing records.** This standard measures the timeliness of billing records and wholesale bills. Each incumbent LEC shall measure the following relative to the timeliness of billing records sent to requesting carriers: 1) Percentage of billing records received in 24 hours or less; 2) Percentage of billing records received in 48 hours or less; and 3) Percentage of wholesale bills received within 10 calendar days of bill date.

(A) **Default performance intervals.** If the incumbent LEC does not have historical data relative to the above measurement category, it shall provide such performance intervals at the following default levels. The incumbent LEC shall provide requesting carriers with billing records within 24 hours 99.9% of the time or greater. 100% of billing records shall be received by requesting carriers within 48 hours. Wholesale bills shall be received within 10 calendar days of bill date 99.95% of the time or greater.



(B) **Measurement formulas.** The following formulas shall be used by the incumbent LEC and requesting carriers to determine the incumbent LEC's compliance with the incumbent LEC's own performance intervals for billing performance standards and/or compliance with the default performance intervals set forth above.

$$\left[ \frac{\text{Number of Billing Records Delivered On Time}}{\text{Total Number of Billing Records Received}} \right] \times 100$$

Mean Time to Provide Billing Records

Mean Time to Deliver Wholesale Bills

(ii) **Accuracy.** This standard measures the percentage and mean time of billing records delivered to the requesting carrier in the agreed-upon format and with the agreed-upon content. The incumbent LEC shall measure the following relative to the accuracy of billing records: 1) Percentage of wholesale bills that are financially accurate; 2) Percentage of all billing records that are accurate.

(A) **Default performance intervals.** If the incumbent LEC does not have historical data relative to the above measurement category, it shall provide performance intervals at the following default levels. 98% or greater of the incumbent LEC's wholesale bills to the requesting carrier shall be financially accurate. 99.99% or greater of all billing records shall be accurate.

(B) **Measurement formulas.** The following formulas shall be used by the incumbent LEC and requesting carriers to determine the incumbent LEC's compliance with the incumbent LEC's own performance intervals for billing performance standards and/or compliance with the default performance intervals set forth above.

$$\left[ \frac{\text{Number of Accurate and Complete Formatted Mechanized Bills}}{\text{Total Number of Mechanized Bills Received}} \right] \times 100$$

$$\left[ \frac{\text{Number of Billing Records Transmitted Correctly}}{\text{Total Number of Billing Records Received}} \right] \times 100$$

(6) **Operator services and directory assistance.** The operator services and directory assistance function measures the percent and mean time a call is answered by an operator service or directory assistance operator. Each incumbent LEC shall measure the percentage of calls answered in 10 seconds by live agents and the percentage of calls answered within 2 seconds by a voice response unit.



(i) **Default performance intervals.** If the incumbent LEC does not have historical data relative to the above measurement category, it shall provide such performance intervals at the following default levels. 90% or greater of all calls handled by a live agent shall be answered within 10 seconds. 100% of all calls handled by a voice response unit shall be answered within 2 seconds. The timing of a call shall be measured from the initiation of ringing until the customer's call is answered.

(ii) **Measurement formulas.** The following formulas shall be used by the incumbent LEC and requesting carriers to determine the incumbent LEC's compliance with the incumbent LEC's own performance intervals for operator services and directory assistance performance standards and/or compliance with the default performance intervals set forth above.

$$\left[ \frac{\text{Number of Calls Answered Within "x" Seconds}}{\text{Total Directory Assistance Calls}} \right] \times 100$$

*where "x" equals 2 or 10 seconds*

Directory Assistance Mean Time to Answer

$$\left[ \frac{\text{Number of Calls Answered Within "x" Seconds}}{\text{Total Operator Service calls}} \right] \times 100$$

*where "x" equals 2 or 10 seconds*

Operator Service Mean Time to Answer

(7) **Network performance (Network Parity).** Network performance (network parity) compares the incumbent LEC's performance for its own customer to the incumbent LEC's performance for requesting carriers' customers. Each incumbent LEC shall measure the deviation between the level of service it provides its own customers and the service it provides for requesting carriers' customers relative to network transmission quality, speed of connection and reliability. Relative to network transmission quality the incumbent LEC shall measure the percentage of deviation between the level of service it provides its own customers and the service it provides for requesting carriers' customers for: 1) subscriber loop loss; 2) signal to noise ratio; 3) idle channel circuit noise; 4) loops-circuit balance; 5) circuit notched noise; 6) attenuation distortion. The incumbent LEC shall also measure the deviation relative to the speed of connection for: 1) Dial Tone Delay; 2) Post Dial Delay; and 3) Call Completion/Delivery Rate. Finally, the incumbent LEC shall measure reliability relative to the percentage of network incidents effecting greater than 5,000 blocked calls and network incidents affecting greater than 100,000 blocked calls.

(i) **Default performance intervals.** If the incumbent LEC does not have historical data relative to the above measurement category, it shall provide such performance intervals at the following default levels. The deviation between the level service the incumbent LEC provide to its own customers and that the incumbent LEC provides to the requesting carrier's customer shall be equal to or less than 0.10% for the above network performance measurements.



Statistical comparison based on the mean incumbent LEC customer experience and standard deviation from this mean, the mean requesting carrier customer experience and standard deviation from this mean, and the number of observations used to determine these means.

(ii) **Measurement formulas.** The following formulas shall be used by the incumbent LEC and requesting carriers to determine the incumbent LEC's compliance with the incumbent LEC's own network performance intervals and/or compliance with the default performance intervals set forth above.

$$\left[ \frac{\text{Mean Incumbent LEC Customer Experience} - \text{Mean Requesting Carrier Customer Experience}}{\text{Mean Incumbent LEC Customer Experience}} \right] \times 100$$

(8) **Interconnection/unbundled network elements and unbundled network element combinations (the "network platform").** This section is made up of two sub-categories: 1) Availability of Network Elements; and 2) Performance of Network Elements.

(i) **Availability of unbundled network elements.** This standard measures the availability of network elements such as signaling link transport, SCPs/Databases, and loop combinations. Each incumbent LEC shall measure the following: 1) Availability of loop combinations; 2) the unavailability of the signaling link transport relative to the A and D links and SCPs/Databases; and 3) SCPs/Databases correctly updated.

(A) **Default performance intervals.** If the incumbent LEC does not have historical data relative to the above measurement category, it shall provide such performance intervals at the following default levels. The incumbent LEC shall ensure that loop combinations are available 100% of the time. The unavailability of the signaling link transport associated with A and D link shall be equal to or less than 1 minute per year. The unavailability of the signaling link transport associated with the SCPs/Databases shall be equal to or less than 15 minutes per year. SCPs/Databases shall be correctly updated within 24 hours 99% or more of the time.

(B) **Measurement formulas.** The following formulas shall be used by the incumbent LEC and requesting carriers to determine the incumbent LEC's compliance with the incumbent LEC's own performance intervals and/or compliance with the default performance intervals set forth above.

$$\left[ \frac{\text{Number of Minutes Loop Available}}{\text{Total Number of Minutes}} \right] \times 100$$

$$\left[ \frac{\text{Number of Minutes A-Link Unavailable During "x" Years}}{\text{"x" Years}} \right]$$

Where X < or > year. After year, monthly reporting should be for a rolling year



$$\left[ \frac{\text{Number of Seconds D-Link Unavailable During "x" Years}}{\text{"x" Years}} \right]$$

$$\left[ \frac{\text{Number of Database Records Correctly Updated}}{\text{Total Number of Update Requests Received by ILEC}} \right] \times 100$$

$$\left[ \frac{\text{Number of Database Records Updated Within 24 Hours of Updated Request Received}}{\text{Total Number of Database Update Requests Received}} \right]$$

(ii) **Performance of network elements.** This standard measures the performance of network elements. Examples of what each incumbent LEC shall measure is as follows: 1) Line Information Data Base (LIDB) reply rate to all query attempts; 2) LIDB query time-out; 3) Unexpected data values in replies for all LIDB queries; 4) Percentage of LIDB queries return a missing customer record availability of loop combinations; 5) Group troubles in all LIDB queries. In addition, the incumbent LEC must report: 1) Mean Post Dial Delay for "0" calls from local service operator (LSO) to requesting carrier operator service platform; 2) Post Dial Delay for "0+" calls with 6 digit analysis from LSO to requesting carrier operator service platform; and 3) Percent of call attempts to requesting carrier operator service platform that were blocked.

(A) **Default performance intervals.** If the incumbent LEC does not have historical data relative to the above measurement category, it shall provide such performance intervals at the following default levels. Line information database (LIDB) reply rate to all query attempts shall be equal to or greater than 99.95%; LIDB query time-out shall be equal to or less than 0.05%; Unexpected data values in replies for all LIDB queries shall be equal to or less than 1%; Percentage of LIDB queries that return a missing customer record shall be 0%; Group troubles in all LIDB queries shall be equal to or less than 0.5%.

The Mean Post Dial Delay for "0" calls from LSO to requesting carrier operator service platform shall be no greater than 2 seconds 95% of the time; and the mean shall be equal to or less than 1.75 seconds.

The percentage of call attempts to a requesting carrier operator services platform that are blocked shall be equal to or less than 0.1%.

(B) **Measurement formulas.** The following formulas shall be used by the incumbent LEC and requesting carriers to determine the incumbent LEC's compliance with the incumbent LEC's own performance intervals for interconnect /unbundled elements and combos and/or compliance with the default performance intervals set forth above.



$$\left[ \frac{\text{(Number of LIDB [or 800 or AIN or n] Query Replies Received By Requesting Carrier)}}{\text{(Total Number LIDB [or 800 or AIN or n] Queries Received by ILEC)}} \right] \times 100$$

$$\left[ \frac{\text{(Number of LIDB [or 800 or AIN or n] Time Out Responses Received By Requesting Carrier)}}{\text{(Total Number LIDB [or 800 or AIN or n] Queries Received by Incumbent LEC)}} \right] \times 100$$

$$\left[ \frac{\text{(Number of LIDB [or 800 or AIN or n] Query Replies with Unexpected Data Values by Requesting Carrier)}}{\text{(Total Number LIDB [or 800 or AIN or n] Queries Received by Incumbent LEC)}} \right] \times 100$$

$$\left[ \frac{\text{(Number of LIDB [or 800 or AIN or n] Query Replies Missing Customer Record Received by Requesting Carrier)}}{\text{Total Number LIDB [or 800 or AIN or n] Queries Received by Incumbent LEC}} \right] \times 100$$

$$\left[ \frac{\text{(Cumulative Total Number of Post Dial Delay Seconds Experienced on "0" Calls From LSO to Requesting Carrier Operator Service Platform)}}{\text{(Total Number of "0" Calls from LSO to Requesting Carrier Operator Service Platform)}} \right] \times 100$$

$$\left[ \frac{\text{(Cumulative Total Number of Post Dial Delay Seconds Experienced on "0+" Calls with 6-Digit Analysis from LSO to Requesting Carrier Operator Service Platform)}}{\text{(Total Number of "0+" Calls with 6-Digit Analysis from LSO to Requesting Carrier Operator Service Platform)}} \right]$$



$$\left[ \frac{\text{(Number of "0+" Calls with 6-Digit Analysis from LSO  
to Requesting Carrier Operator Service Platform  
that have Post Dial Delay  $\leq$  2 Seconds)}}{\text{(Total Number of "0+" Calls with 6-Digit Analysis from  
LSO to Requesting Carrier Operator Service Platform)}} \right]$$

$$\left[ \frac{\text{Number of Blocked Call Attempts to Requesting  
Carrier Operator Service Platform}}{\text{Total Number of Call Attempts to Requesting  
Carrier Operator Service Platform}} \right] \times 100$$



**REDLINED VERSION**

**LCI International Comments  
filed July 10, 1997**



**BEFORE THE  
FEDERAL COMMUNICATIONS COMMISSION  
WASHINGTON, DC 20554**

In the Matter of: )  
 )  
Implementation of the Local )  
Competition Provisions in the ) CC Docket No. 96-98  
Telecommunications Act of 1996 ) RM 9101

**LCI INTERNATIONAL TELECOM CORP. COMMENTS  
ON PUBLIC NOTICE CONCERNING  
PETITION FOR EXPEDITED RULEMAKING  
TO ESTABLISH REPORTING REQUIREMENTS AND  
PERFORMANCE AND TECHNICAL STANDARDS  
FOR OPERATIONS SUPPORT SYSTEMS**

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## **I. Introduction**

Petitioner LCI International Telecom Corp. (LCI) supports the issuance of a Notice of Proposed Rulemaking to establish performance standards (composed of measurement categories, default performance intervals, and measurement formulas), reporting requirements, technical standards, and remedial provisions regarding access to operation support systems (OSS).<sup>1</sup> These comments suggest proposed rules concerning OSS performance standards, as well as suggested text for a Commission order regarding technical standards, reporting requirements, and remedial provisions. LCI's suggestions are set forth in detail in Appendices A and B.

## **II. Need for Commission action**

The Commission repeatedly has stated that incumbent local exchange carriers (ILECs) must provide competitors nondiscriminatory access to OSS under Section 251 of the Telecommunications Act of 1996 (Act), 47 U.S.C. §§ 151, et seq. In its First Report and Order (Order) in CC Docket No. 96-98 (Implementation of the Local Competition Provisions of the Telecommunications Act of 1996), the Commission noted that without access to ILEC OSS functions "in substantially the same time and manner that an incumbent can [access OSS] for itself, competing carriers will be severely disadvantaged, if not precluded altogether, from fairly competing." [Order ¶ 518] In its Second Order on Reconsideration (Second Order on Recon),

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<sup>1</sup> As used in these Comments, OSS includes operating support systems, as well as the items as to which Section 251 of the Telecommunications Act and the Order at ¶¶ 534-540 require parity of access. Accordingly, the service quality measurements set forth in Appendix B hereto include performance standards for (1) pre-ordering, (2) ordering and provisioning, (3) maintenance and repair, (4) general, (5) billing, (6) operator services and directory assistance, (7) network performance, and (8) interconnection, unbundled network elements, and unbundled network element combinations (the network platform).



the Commission reaffirmed the need for OSS parity and further indicated that ILECs bear the burden of demonstrating that they are providing parity of OSS access to competitive local exchange carriers (CLECs). [Second Order on Recon ¶ 9]

While the Commission has stated the need for OSS parity, existing rules do not explain how to determine whether an ILEC is complying with the OSS provisions of the FCC's Order implementing Section 251 of the Act. Clearly defined OSS standards would benefit ILECs and CLECs alike -- the ILECs would know precisely what they need to do to demonstrate parity of access to OSS, and the CLECs would know when such OSS compliance genuinely has been achieved. In this way, the energies now being spent on debating the matter could be redirected to achieving compliance as rapidly as possible.

Establishing performance standards, as defined here and in Appendix B, in both the resale and unbundled network element (UNE) contexts, together with the related reporting requirements, is important to ensuring that there is a sufficient base from which the CLECs can launch effective local competition. For resale, one may directly measure parity by comparing the OSS functionality that an ILEC provides itself with the functionality an ILEC provides to CLECs. For UNEs, however, direct comparison may not be possible in some cases, but the necessity of requiring an ILEC to provide a reasonable and adequate level of OSS access and supporting activities is equally paramount.

By developing OSS performance standards for resale and UNEs, the Commission will advance greatly the 1996 Telecommunications Act's promise of providing consumers the benefit of robust, open competition in the local telecommunications market.



### **III. Overview of Commission action suggested by LCI**

The remaining portions of these comments briefly outline LCI's suggestions for Commission action. LCI's suggestions are set forth in more detail in Appendix A and Appendix B hereto. Part I of Appendix A and Appendix B in its entirety set forth suggested text for draft Commission rules that would implement OSS performance standards. Parts II, III and IV of Appendix A set forth suggested text for a proposed Commission order relating to:

- Technical standards;
- Reporting requirements; and
- Remedial provisions to ensure that ILECs in fact are providing nondiscriminatory access to their OSS.

#### **A. Suggested text of draft rules that would implement OSS performance standards**

ILECs must provide competing carriers with parity of access to their OSS functions under Section 251 and the Order. Parity of access means that ILECs must provide competing carriers with at least the same OSS functionality that they provide themselves. Thus, to measure parity of access, one should compare the performance that each ILEC provides itself with the performance provided to CLECs for resale and UNEs in all OSS functional categories, detailed in Appendix B hereto. These include (1) pre-ordering, (2) ordering and provisioning, (3) maintenance and repair, (4) general, (5) billing, (6) operator services and directory assistance, (7) network performance, and (8) interconnection, unbundled network elements, and unbundled network element combinations (the network platform).



**Part I, Alternative A: Providing short period of industry negotiations on performance standards prior to final Commission action**

Regarding negotiated rulemaking, we respectfully suggest that the Commission consider carefully the possibility of establishing a brief period for industry and government meetings (including representatives of ~~both the Commission, the Department of Justice (DOJ), and state~~ public utility commissions) prior to promulgating a final performance standards rule. See Appendix A, Part I. In any such meetings, the Commission should convene the affected industry parties, as well as representatives of the FCC, DOJ, ~~and~~ the National Association of Regulatory Utility Commissioners (NARUC) to establish measurement categories, measurement formulas, and default~~parameters, methodologies, and minimum~~ performance intervals (collectively constituting "performance standards") for resale and for UNEs, including the network platform. This group should work to develop agreed upon standards in the areas of (1) pre-ordering, (2) ordering and provisioning, (3) maintenance and repair, (4) general, (5) billing, (6) operator services and directory assistance, (7) network performance, and (8) interconnection, unbundled network elements, and unbundled network element combinations (the network platform). By a very short date certain established by the Commission -- LCI suggests six weeks -- ILEC parties, as a group, and non-ILEC parties, as a group, each should report findings to the Commission. The government observers/participants appointed by NARUC and the DOJ also should have an opportunity to comment fully to the Commission on their views of appropriate performance standards.

Such a brief, expedited procedure holds the possibility of providing the Commission with the best efforts of industry and knowledgeable government observers/participants appointed by



the Commission, the DOJ, and NARUC before issuance of a final performance standards rule. It also could clarify outstanding issues, and expedite the issuance of a final rule, since comments filed by the affected parties and the DOJ and NARUC participants/observers would provide a detailed, relatively concise record of the issues agreed upon, and those outstanding, with supporting materials presented.

Any final Commission rule on performance standards, regardless of the methodology established to reach it, should include provisions for beta testing. To ensure operability and scalability of OSS functions for resale and for UNEs, the Commission should require each ILEC subject to its order to conduct beta tests to demonstrate that it is providing sufficient OSS access to meet its obligations under the Act and the Order. Based on Ameritech's own internal beta test standard for interLATA OSS, we suggest that a reasonable beta test would require an ILEC to demonstrate, for no less than 90 days, its ability to handle at least 20,000 orders per day or 10% of the customer base per month (i.e., roughly the percentage able to be handled in the long distance markets) per billing site. [See Exhibit 1 at p. 3, for similar standard recently established by Ameritech.]

**Part I, Alternative B: Providing that Commission immediately set performance standards for interstate jurisdiction**

If, in any NPRM following this notice and comment period, the Commission decides to offer as alternatives both a short period of industry negotiations, as well as proceeding directly to Commission action, the Commission should include in the NPRM a requirement that ILECs subject to Section 251 and the Commission's orders provide their own current performance standards for OSS, from January 1, 1997 forward. Such information will be necessary to have a



record from which the Commission could itself establish performance standards. Without such a requirement in the NPRM, a complete new round of comments and briefing would be required to provide such a record. (If a short period of negotiations is chosen, the comments filed by the respective groups concerning performance standards issues would provide the record for Commission action, and no such requirement need be included in any NPRM.)

In the NPRM, if the Commission wishes to leave the option open of an immediately established set of performance standards, it should require, as to each functional measurement ~~OS~~ category set forth in Appendix B, that each ILEC file with the Commission all existing performance intervals ~~standards~~ for which data exist. ILECs also should identify the measurement categories for which performance intervals ~~standards~~ do not exist. For existing measurement categories ~~standards~~, ILECs further should disclose historical data, measurement formulas ~~measurement criteria and methodology~~, and reporting requirements.

After receipt of these materials, and comments thereon, the Commission will be in a position to establish performance standards. The performance standards suggested by LCI are set forth in Appendix B hereto.

LCI suggests that any measurement categories ~~performance standards~~ established by the Commission should contain default performance intervals. ILECs would be required to follow the measurement categories and measurement formulas established by the Commission. As to performance intervals, however, the Commission's default performance intervals would take effect only when an ILEC had failed or refused to supply appropriate data for any measurement category or categories. If the ILEC does provide such information, then the "parity" required by the Act and this Commission's orders would be measured by the ILEC's own performance



intervals. The parity requirement, however, is subject to a reasonableness standard. If an ILEC's provisioning to itself is lower than reasonable, then LCI proposes here that the state public utility commissions are the appropriate bodies to establish reasonable standards for ILECs within their jurisdiction. See Appendix A, at p. 7, and Appendix B at section (a).

**B. Suggested text for Commission order regarding technical standards**

The Commission should act promptly to encourage the rapid development of technical standards. There is a critical need for established technical standards to avoid the problems that occur when ILECs change systems standards without notice or otherwise without regard to CLECs' needs. Many industry participants through various industry fora have been working to develop technical standards, particularly standards for the OSS software interfaces, and the FCC should build on these efforts.

To maximize the likelihood of producing a timely, and hence an efficacious, result, the Commission should set a reasonable date certain for finalizing technical standards. If the parties cannot agree to technical standards according to the schedule set by the Commission, then the Commission itself should undertake to set such technical standards. A reasonable initial date certain would be May 1, 1998, with the Commission to act, if necessary, no later than October 1, 1998 to set any unresolved technical standards.

Technical standards will need to allow for the differing needs of competitive carriers. For example, extremely small carriers may continue to need to communicate by fax while larger carriers could communicate by EDI or Web/GUIs. National carriers could communicate with



uniform software interfaces, and extremely large carriers with huge volumes could communicate via electronic bonding.

The Commission also should stress that technical standards should be developed through a back-and-forth process, which is normal in a commercial setting. ILECs should not be permitted to unilaterally impose standards on users through industry fora. Thus, the FCC should instruct industry groups to cooperate with other industry groups -- including user groups -- to develop the technical standards on an iterative basis.

**C. Suggested text for Commission order regarding reporting requirements**

To ensure that ILECs are providing CLECs parity of access to OSS functionality, the Commission should require detailed reporting by ILECs. ILEC reporting should ensure that ILECs are complying with Section 251 of the Act and the Commission's Order. Additionally, ILEC reporting should ensure that CLECs have parity of access to ILEC-controlled competitive information.

To satisfy Section 251 of the Act and the Commission's Order, each ILEC should submit monthly reports on OSS performance to the CLECs with which it is dealing and to the Commission and to the state public utility commissions with jurisdiction. Monthly reports will enable CLECs to track its performance data over time and compare it to the performance received by the ILEC and the CLECs on average. Monthly data to the Commission and state commissions will ensure that regulatory bodies are kept abreast of ILEC compliance with OSS performance standards.



We urge the Commission to develop uniform reporting requirements, as outlined here and in greater detail in Appendix A, Part III. Once uniform measurement categories are defined and uniform measurement formulas established, with appropriate default performance intervals set, requiring the ILECs to report uniform data will allow well-known and understood tests, so that state commissions, this Commission, CLECs and ILECs will all "speak the same language" on the subject of performance standards. A uniform system of reporting also will enable the state commissions to take appropriate corrective action where necessary, upon a finding that the ILECs actual performance intervals are less than reasonable. Nor will a uniform system of measurement categories and measurement formulas create additional burdens on the ILECs. Indeed, a uniform system should lighten their burden, since their back-office and computer tracking systems could be set up to measure the same items, in the same way. Only performance intervals would change by jurisdiction, depending on whether the state public utility commission had taken action to establish reasonable performance intervals. Finally, uniform measurement categories and measurement formulas are essential for CLECs to set up their back-office systems to track and measure the actual performance of ILECs with which they do business. Many CLECs do business in multiple jurisdictions. Without uniform measurement categories, and measurement formulas, CLECs burden of amassing information about actual performance by ILECs will be greatly increased. In short, a uniform system of measurement categories, and measurement formulas, will ease the burden for all concerned -- state commissions, this Commission, the DOJ, ILECs and CLECs.

The Commission also ~~must~~should require reporting that ensures that ILECs provide CLECs equal access to Universal Service Order Codes (USOCs) and to information regarding



planned changes to systems software. USOC codes, with plain English translation, describe ILEC products and indicate vital competitive information, such as whether a product is resellable or subject to a term contract. Access to information regarding systems changes is critical to keeping CLEC systems in lockstep with ILEC systems, without which parity of access cannot exist. Without reporting on ILEC-controlled competitive information, CLECs never will obtain parity with regard to features and services available to customers and potential customers.

Requiring ILECs to provide information on USOCs and software and systems changes to CLECs creates no additional burdens on ILECs, since the data already exists.

**D. Suggested text for Commission order regarding remedial provisions**

LCI believes that the Commission has full authority to remedy violations of Section 251 of the Act and this Commission's orders thereunder by prohibiting ILECs from marketing long distance services to their local customers for a period of time to be determined by the Commission, after notice and opportunity for a hearing, until full compliance with Section 251 and the Commission's orders is demonstrated through the performance standards reports LCI suggests should be required. See Appendix A, Section IV, for legal authority in support of this suggested text. [The remainder of this section is stricken as duplicative of Appendix A, Section II.] ~~For the reasons set forth at some length in Appendix A, Part IV A, sidesteps several lessons learned in the last decade in the area of technical standards for transfer of long distance customers. There, the standards have evolved through the work in various industry fora, such as Alliance for Telecommunications Solutions (ATIS) and Order and Billing Forum (OBF), which are open to participation by all affected parties in the industry. The technical standards~~